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## **A study of the $\text{Yb}_x\text{Y}_{1-x}\text{InCu}_4$ alloy system**

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We report preliminary results of investigations of the  $\text{Yb}_x\text{Y}_{1-x}\text{InCu}_4$  alloy system ( $x=0, 0.1, 0.5, 0.825, 0.9, 1$ ). We have detected the valence transition for  $x=1, 0.9$  and  $0.825$  by thermopower measurements as well as by resistivity and magnetic susceptibility. Although the ionic state of the Yb ion is +3 in the high temperature phase for these concentrations as well as in the dilute alloys at all temperatures, the well-known features of Kondo behaviour are hardly noticeable. In the Yb-rich alloys, the dominant effect is the phase transition. The absent of Kondo characteristics is attributed to the characteristics of the matrix. Hence, we discuss the semimetallic behavior of  $\text{YInCu}_4$ . We show that its transport properties could be described by an activation process with the activation constant  $\Delta \approx 90$  K.